Peroxisomes are required for efficient penicillin biosynthesis in Penicillium chrysogenum

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Supplementary Tables

Supplementary Table 1. Plasmids used in this study

Name	Description	reference
pGBRH2	Plasmid containing P_{pcbC} and T_{penDE}, Amp^R	(2)
pFEM36	Plasmid containing GFP•SKL cassette, Kan^R	(4)
pGBRH2-GFP.SKL	pGBRH2 with GFP•SKL, Amp^R	This study
pBBK-001	pGBRH2 with DsRed•SKL, Amp^R	(1)
pNiGANi	Plasmid with *A. nidulans amdS* gene expressed by *A. nidulans gpdA* promoter, Amp^R	DSM, Lab collection
pBBK-007	pBBK-001 with P_{pcbC} replaced by P_{gpdA}, Amp^R	This study
pWHM-001	pGBRH2-GFP•SKL with P_{pcbC} replaced by P_{gpdA}, Amp^R	This study
pDONR221	Multisite Gateway vector, Kan^R Cm^R	Invitrogen
pENTR221-pex3-nostop	pDONR221 with *P. chrysogenum pex3* gene lacking stop codon, Kan^R	This study
pDONR P4-P1R	Multisite Gateway vector, Kan^R Cm^R	Invitrogen
pENTR41-P_{gpdA}	pDONR P4-P1R with *A. nidulans gpdA* promoter, Kan^R	Gift from J.G. Nijland
pDONR P2R-P3	Multisite Gateway vector, Kan^R Cm^R	Invitrogen
pENTR23-GFP-T_{penDE}	pDONR P2R-P3 with *GFP* gene and *P. chrysogenum penDE* terminator, Kan^R	Gift from J.G. Nijland
pDEST R4-R3	Multisite Gateway vector, Amp^R Cm^R	Invitrogen
pEXP-Pcpex3•GFP	pDEST R4-R3 with P_{gpdA}-*pex3*•*GFP*-T_{penDE} cassette, Amp^R	This study
pENTR221-P_{gpdA}-GFP•SKL-T_{penDE}	pDONR221 with P_{gpdA}-*GFP*•*SKL*-T_{penDE} cassette from pWHM-001, Kan^R	This study
pENTR41-5'niaD	pDONR P4-P1R with 5'end of *P. chrysogenum niaD* gene; Kan^R	DSM, Lab collection
pENTR23-3'niaD	pDONR P2R-P3 with 3'end of *P. chrysogenum niaD* gene; Kan^R	DSM, Lab collection
pEXP-5`niaD-$P_{gpdA}$-GFP•SKL-$T_{penDE}$-3`niaD	pDEST R4-R3 with Δ*niaD*::P_{gpdA}-*GFP*•*SKL*-T_{penDE} cassette, Amp^R	This study
pENTR41-DNM1-Prom	pDONR P4-P1R containing *P.chrysogenum dnm1* promoter region, Kan^R	This study
pENTR23-DNM1-Term	pDONR P2R-P3 containing *P.chrysogenum dnm1* terminator region, Kan^R	This study
pENTR221-AMDS	pDONR221 containing *A. nidulans amdS* expression cassette, Kan^R	Gift from J.G Nijland.
pEXP43-5Dnm1-AMDS-3Dnm1	pDEST R4-R3 containing *P.chrysogenum dnm1* deletion cassette, Amp^R	This study
pDEST R4-R3/AMDS	pDEST R4-R3 with *A. nidulans amdS* expression cassette, Amp^R Cm^R	(1)
pENTR41-P_{pcbC}	pDONR P4-P1R containing *P. chrysogenum pcbC*	(3)

	promoter region, Kan^R	
pENTR221-Pcdnm1	pDONR221 containing *P. chrysogenum dnm1* cDNA, without stop codon, Amp^R	This study
pENTR23-His8•T_{penDE}	pDONR P2R-P3 containing His8 tag and *P. chrysogenum penDE* terminator region, Kan^R	(3)
pEXP-PcDNM1•HIS8	Plasmid containing P_{pcbC}-*dnm1*•*His8*-T_{penDE} expression cassette, Amp^R	This study

Supplementary Table 2. Oligonucleotide primers used in this study

Name	Oligonucleotide primers
BB-JK009	5' AGAGGTACCGCGGCCGCTCTGTACAGTGACCGGTGAC 3'
BB-JK010	5' AGAGGATCCTGTGATGTCTGCTCAAGCGGGG 3'
attB1-f-pex3	5` GGGGACAAGTTTGTACAAAAAAGCAGGCTCCATGATCGGTGCGACGAGGCG 3`
attB2-r-pex3-nostop	5` GGGGACCACTTTGTACAAGAAAGCTGGGTCCTGTGTTGGCTGCTTTTCTTC3`
attB1-f-PgpdA	5` GGGGACAAGTTTGTACAAAAAAGCAGGCTTAACCGCGGCCGCTCTGTACAGT 3`
attB2-r-TpenDE	5'GGGGACCACTTTGTACAAGAAAGCTGGGT ACTCCCCCCCTGAAAGAGTTG 3'
BB-JK201	5'GGGGACAACTTTGTATAGAAAAGTTGCTCGTTCGAGTTGCACCTTATCTG 3'
BB-JK202	5'GGGGACTGCTTTTTTGTACAAACTTGAGATCTTGAGGTTGATCGGCTGTC 3'
BB-JK203	5'GGGGACAGCTTTCTTGTACAAAGTGGCTGGTCTACGAGGAGCTTATCAAG
BB-JK204	5'GGGGACAACTTTGTATAATAAAGTTGCGTCAAGCGTGACGCAGAATCAAG 3'
BB-JK205	5'TGTGGCCTATGTATCGTATCCTTG 3'
PgpdA.rev	5'GCATGCCAGAAAGAGTCAACC 3'
BB-JK209	5'GGGGACAAGTTTGTACAAAAAAGCAGGCTTTCGGTTCGACATCATGACATCGCTG 3'
BB-JK210	5'GGGGACCACTTTGTACAAGAAAGCTGGGTTTAACACCTCGCCCACAATCTTGGC 3'
BB-JK211	5'TCTGCTCGTGACAGTGAACAAG 3'
BB-JK212	5'CTGCTTCGATCTCTTGCTTCAC 3'

Supplementary references

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